



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,089	06/24/2004	Dierk Schroder	41653-201605	5199

26694 7590 01/18/2007  
VENABLE LLP  
P.O. BOX 34385  
WASHINGTON, DC 20043-9998

EXAMINER
----------

EDEL, JOHN B

ART UNIT	PAPER NUMBER
----------	--------------

1731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/500,089

Applicant(s)

SCHRODER, DIERK

Examiner

John B. Edel

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112 & 35 USC § 101***

#### **(1)**

Hereinafter, the format "26 [...]" is a double citation referring the reader to Applicants claim number (underlined) and prior art being cited (in brackets).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, the word "means" is followed by the word(s) "light transmission method" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) following "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967). For the purposes of compact prosecution the means language contained in claim 1 will be interpreted as "a means for measuring light transmitted through a body," thereby invoking 35 USC 112 paragraph 6.

#### **(2)**

Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A broad range or limitation together with a narrow

Art Unit: 1731

range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 4 contains the language "in particular" followed by further potentially exemplary limitations.

(3)

Claims 6-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 6 provides for the use of "a first measuring device," but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

35 U.S.C. 101 reads as follows:

Art Unit: 1731

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims **6-16** are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim **6** and the claims which depend from claim 6 have been examined as a process under 35 USC 101. The term "A system" and applicant's combination of process limitations and structural limitations make the statutory classification of these claims ambiguous.

(4)

Claims **6-16** are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: How the various measuring devices are related.

***Claim Rejections - 35 USC § 102***

(5)

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1731

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by United States

Patent No. 3,334,240 to James Black ("Black"). Black teaches:

**Claim 1.** (Original) A measuring device for measuring the properties of multi-segmented filters (61 - 64) in the tobacco-processing industry by means of a light transmission method<sup>1</sup> [figures 1 and 2], wherein a radiation source [3 in figure 1] (85) and a radiation receiver [element 9 of figure 1] (82, 80) are provided and the radiation source (85) permits an essentially uniform radiation in longitudinal axial direction of a multi-segmented filter<sup>2</sup> (61 - 64), characterized in that the radiation receiver (82,80) is arranged within a conveying element [Figure 1] (21,3 1, 34) which is designed for conveying at least multi-segmented filters [col. 2 lines 15-40] (61 to 64).

(6)

Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by United

States Patent No. 5,432,600 to Grollimund et al. ("Grollimund").

**Claim 18.** (Original) A quality assurance method for filter cigarettes with multi-segmented filters (61 to 64), wherein the values for the radiation reflected by the filter components 61 to 64) of the multi-segmented filter are compared to first set values [col. 9 line 50 – col. 10 line 5] with the aid of a reflection technique [figure 2] and in a first measuring device (41) and wherein the filter cigarette or the components (60 to 64) of the filter cigarette are discarded if the deviations exceed the values of a first preset tolerance range [col. 9 line 50 – col. 10 line 5].

### ***Claim Rejections - 35 USC § 103***

(7)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

---

<sup>1</sup> The differences between Black and the disclosed means are insubstantial.

<sup>2</sup> The radiation passing through the cigarette filter would be uniform in an axial direction in that each point along the axial direction would receive the same amount of radiation.

Art Unit: 1731

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grollimund in view of Black. Grollimund discloses: a measuring device for measuring the properties of filters 1 [figure 2]; a radiation source [figure 2 element 30]; a radiation receiver 1 [figure 2 element 80]; essentially uniform radiation in a longitudinal axial direction of a filter 1 [col. 6 lines 65-68]; the radiation receiver is arranged within a conveying element 1 [figure 2] which is designed for conveying multi-segmented filters<sup>3</sup>. Black discloses what Grollimund fails to disclose expressly, namely a means for a light transmission method 1 [Figures 1-3]. Grollimund and Black are analogous because both relate to the measurement of properties of cigarette rods. It would be obvious to incorporate the photoelectric sensing device of Black with the 'on the drum' inspection cameras of Grollimund because doing so would provide the capability of identifying quality issues within a cigarettes being inspected. Therefore, it would have been

---

<sup>3</sup> The drums of Grollimund are capable of conveying multi-segmented filters.

Art Unit: 1731

obvious to combine Black with Grollimund to obtain the invention as specified in Claim

1.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grollimund and Black as applied to claim 1 above, and further in view of Grollimund's disclosure of: lighting the length of a cigarette with a linear array of light emitting diodes 2 & 3 [col. 6 lines 50-65] and at least one receiving element 4 [figure 2 element 80]. Therefore, it would have been obvious to combine Grollimund with Black to obtain the invention as specified in Claims 2 and 3.

Claims 6-7 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grollimund and Black as applied to claim 1 above, and further in view of Grollimund's disclosure of: using a first measuring device which utilizes a reflection technique 6, 7, 14 [figure 2]; the measurement devices being in and/or on a filter tipping machine downstream of the combination of components 9, 10 [col. 4 lines 1-35]; the measurement device is on a transfer drum downstream of a drum for combining components 11 [figure 1]; the second or third measuring device is in a region where rod shaped articles are produced and downstream of a station where an article is wrapped 12 [figure 1]; the station consists at least in part of drums 13 [figure 1]; a radiation receiver having several receiving elements arranged in a row<sup>4</sup> 15 [col. 8 lines 10-20] which is position sensitive, extending in at least one direction, and comprises a CCD 16 [figures 1 and 2 and col. 8 lines 10-20]; and Black's disclosure of: a second measuring device for measuring by a light transmission method 6, 7 [figures 1-3]. Therefore, it

---

<sup>4</sup> CCD cameras have within them several receiving elements arranged in a row.



Art Unit: 1731

would have been obvious to combine Grollimund with Black to obtain the invention as specified in Claims 6-7 and 9-16.

(8)

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grollimund and Black as applied to claim 4 above, and further in view of United States Patent No. 6,166,768 to Fossum et al. ("Fossum"). Grollimund discloses that CCD cameras are used to capture the images of the cigarettes 5 [col. 5 lines 10-20]. Fossum discloses what Grollimund and Black fail to disclose expressly, namely that CCDs and photodiodes are substitutes for each other with respect to capturing images and converting them into electronic signals 5 [col. 1 lines 25-40]. Fossum and Grollimund/ Black are analogous because Fossum relates to a problem posed by Grollimund/ Black namely, what forms of image capture equipment are acceptable for the application. It would be obvious to combine the photodiodes of Fossum with the image capture arrangement of Grollimund/ Black because Fossum discloses that the technologies are substitutes. Therefore, it would have been obvious to combine Fossum with Grollimund/ Black to obtain the invention as specified in Claim 5.

(9)

Claims 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grollimund in view of Black. Grollimund discloses: a filter tipping machine 17 [figure 1]; a system for measuring properties of rod shaped articles which are combined into filter cigarettes 17 [figure 1]; a first measuring device utilizing reflection techniques 17 [figure

Art Unit: 1731

1]; radiation source and receiver are provided 17 [figure 2] with the source providing uniform radiation in an axial direction 17 [col. 6 lines 65-68]; and the radiation receiver is arranged in a conveying element designed for conveying at least multi-segmented filters. Black discloses what Grollimund fails to disclose expressly, namely a second measuring device using the light transmission method 17 [figures 1-3]; that one of the devices measures multi-segmented filters by way of light transmission method 17 [col. 1 lines 10-25]. Grollimund and Black are analogous because both relate to the measurement of properties of cigarette rods. It would be obvious to incorporate the photoelectric sensing device of Black with the 'on the drum' inspection cameras of Grollimund because doing so would provide the capability of identifying quality issues within a cigarettes being inspected. Therefore, it would have been obvious to combine Black with Grollimund to obtain the invention as specified in Claim 17.

(10)

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,432,600 to Grollimund et al. ("Grollimund") in view of Black. Grollimund discloses: comparison of values derived from a reflection technique 18 [col. 9 line 50 – col. 10 line 5; figure 2] and the rejection of cigarettes not within tolerances 18 & 19 [col. 9 line 50 – col. 10 line 5; figure 2]. Black discloses what Grollimund fails to disclose expressly, namely a second measuring device using the light transmission method 19 [figures 1-3]. Grollimund and Black are analogous because both relate to the measurement of properties of cigarette rods. It would be obvious to incorporate the photoelectric sensing device of Black with the on the drum inspection cameras of

Art Unit: 1731

Grollimund because doing so would provide the capability of identifying quality issues within a cigarettes being inspected. Therefore, it would have been obvious to combine Black with Grollimund to obtain the invention as specified in Claim 19.

**(11)**

Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grollimund and Black as applied to claim 6 and 18 respectively above, and further in view of the fact that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). It would therefore be obvious to provide further reflection technique measuring devices not expressly disclosed in Grollimund and Black as needed thereby obtaining the invention as specified in claims 8 and 20.

**Conclusion**

**(12)**

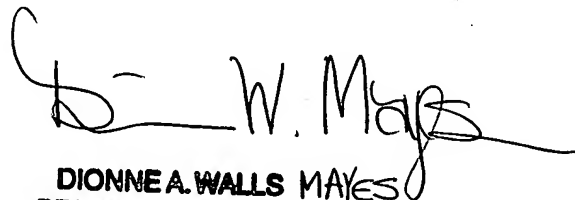
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Edel whose telephone number is (571) 272-4804. The examiner can normally be reached on 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1731

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JBE



**DIONNE A. WALLS MAYES**  
**PRIMARY EXAMINER**